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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10700797	11/3/2003	DATTA ET AL.	450133-04881

EXAMINER

Elmira Mehrmanesh

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2113 4

DATE MAILED:

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Commissioner for Patents

The attached Office Action is a supplementary action containing a correction with respect to claim 26 of the prior Office Action mailed on April 17, 2007. No new response period has been set and the response period continues from the period set in the prior Office Action mailed on April 17, 2007.

DETAILED ACTION

This action is in response to an amendment filed on January 29, 2007 for the application of Datta et al., for a "Violations in a peer-to-peer relay network" filed November 3, 2003.

Claims 1, 4-17, 20-21, 24 and 26-28 are pending in the application.

Claims 1, 4-17, 20-21, 24 and 26-28 are rejected under 35 USC § 103.

Claims 1, 4-6, 17, 21, 24, and 26-28 have been amended.

Claims 2, 3, 18, 19, 22, 23, and 25 have been cancelled.

Interview Summary

The Examiner was contacted by the applicant's representative Paul Levy, via telephone on May 25, 2007 to discuss the rejection of claim 26 with respect to the cited reference. The Examiner notes that this action is a supplementary action, which contains a correction with respect to claim 26 of the prior Office Action mailed on April 17, 2007. The prior Office Action (see page 15-16) contained an incorrect limitation of "*comparing by the receiving peer system the first content and second content data: and determining that the message from the first sending peer system is different from at least one of the second messages based on the comparison*" regarding claim 26. Page 16 of this supplemental action contains the following correction:

The aforementioned limitation was replaced by a correct limitation of "*comparing by the sending peer of the relayed back message to the sent first message to identify a receiving peer responsible for the manipulation of data.*"

Claim Objections

Claim 21 is objected to because of the following informalities: On line 2, 'cause' is to be changed to 'causes'. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4-17, 20-21, 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leen et al. (U.S. Patent No. 6,899,628) in view of Baughman et al. (INFOCOM 2001. Twentieth Annual Joint Conference of the IEEE Computer and Communications Societies. Proceedings. IEEE, 22-26 April 2001) Entitled "Cheat-proof playout for centralized and distributed online games".

As per claim 1, Leen discloses a method of detecting and recovering from violations (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, and further lines 46-53 disclose revealing cheating*) in a relay network (col. 4, lines 31-36, *Frame Relay frames*), comprising:

receiving a first message having first content data (col. 7, lines 8-13 and 48-51, *event information*) at a receiving peer system from a first sending peer system connected to said peer system in a relay (col. 4, lines 31-36, *Frame Relay frames*) network (col. 7, lines 22-27, *wherein Leen discloses event manager 130 may receive first event information 122*)

detecting a manipulation of data in said received first message (col. 8, lines 46-53, *revealing cheating*), said manipulation of data changing the outcome of processing be the receiving peer system (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114*)

receiving a second message having second content data (col. 7, lines 8-13 and 48-51, *event information*) at the receiving peer system (col. 4, lines 31-36, *Frame Relay frames*) from at least one second sending peer system (col. 7, lines 27-30, *wherein Leen discloses event manager 130 may receive second event information 122*)

wherein the second content data are expected (col. 8, line 48, *certain predetermined thresholds*) to be substantially the same as the first content data (col. 8,

lines 46-53, wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user)

wherein detecting the manipulation (col. 8, lines 21-25, wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114) includes:

comparing by the receiving peer system the first content and second content data (col. 8, lines 34-38, wherein Leen discloses **comparing first and second statistics information**) and determining that the message from the first sending peer system is different from at least one of the second messages based on the comparison (col. 8, lines 46-53, wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user)

Leen discloses a multi-player gaming system (Fig. 1) with a frame-relay network (col. 4, lines 31-36, *Frame Relay frames*). However Leen fails to explicitly disclose a peer-to-peer network.

Baughman teaches:

and sending a manipulated data alert message (page 110, col. 2, lines 40-42, *alert players*) to other peer systems connected to said peer system in said peer-to-peer relay network (Fig. 4) the manipulated data alert message identifying the sending peer responsible for the manipulation of data (page 110, col. 2, lines 27-42).

It would have been obvious to one of ordinary skill in the art at the time the invention to use the method of providing cheat-proof playout for online games of Baughman et al.'s in combination with the system and method for providing game event management to a user of Leen et al. to provide a secure network.

One of ordinary skill in the art at the time the invention would have been motivated to make the combination because both inventions disclose a method of detecting a cheating violation in a multi-player online gaming system (Leen, col. 8, lines 46-53, *revealing cheating*) and (Baughman, page 110, col. 2, lines 27-42) in which players are able to manipulate data to change the outcome of the game (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals characteristics associated with the outcome of a gaming application*) and (page 105, col. 2, lines 13-17, *wherein Baughman discloses Cheating occurs when a player causes updates to game state that defy the rules of the game or gains an unfair advantage*). Leen discloses a system (Fig. 1, element 10) for executing gaming applications that includes a multi-player system (Fig. 1) including a frame-relay network (col. 4, lines 31-36, *Frame Relay frames*). He also discloses other architectures and components of gaming system (Fig. 1, element 10) may be used (col. 4, lines 21-22). Baughman's peer-to-peer network system (page 105, col. 1, lines 27-29) is an architectural variation of Leen's network system, which increases scalability and performance (Baughman, page 104, col. 1, lines 34-35).

As per claim 4, Leen discloses a method of detecting and recovering from a cheating (col. 8, lines 46-53, *revealing cheating*) violation (col. 8, lines 21-25, *wherein*

Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114) in a relay network (col. 4, lines 31-36, Frame Relay frames), comprising:

receiving a message having content data (col. 7, lines 8-13 and 48-51, *event information*) at a receiving peer system from a first sending peer system connected to said peer system in a relay (col. 4, lines 31-36, *Frame Relay frames*) network (col. 7, lines 22-27, *wherein Leen discloses event manager 130 may receive first event information 122*)

detecting a manipulation of data in the received message (col. 8, *lines 46-53, revealing cheating*), said manipulation of data changing the outcome of processing be the receiving peer system (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114*)

wherein detecting said cheating violation includes:

generating predicted data (col. 8, line 48, *certain predetermined thresholds*)

comparing said message from said sending peer system with said predicted data (col. 8, lines 34-53, *wherein Leen discloses comparing statistics information and measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user*)

determining that said message from said sending peer system is different from said predicted data (col. 8, lines 46-53, *wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user*)

Leen fails to explicitly disclose a peer-to-peer network.

Baughman teaches:

and sending a manipulated data alert message (page 110, col. 2, lines 40-42, *alert players*) to other peer systems connected to said peer system in said peer-to-peer relay network (Fig. 4) the manipulated data alert message identifying the sending peer responsible for the manipulation of data (page 110, col. 2, lines 27-42).

As per claim 5, Leen discloses sending said predicted data (col. 8, lines 25-28, *presenting statistic information to users*)

Baughman teaches:

to each other peer system connected to said peer system in said peer-to-peer relay network (page 110, col. 2, lines 27-42).

As per claim 6, Leen discloses a method of detecting and recovering from a security violation (col. 8, lines 46-53, *revealing cheating*) violation (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics*

associated with how particular players play a gaming application 114) in a relay network (col. 4, lines 31-36, Frame Relay frames), comprising:

receiving a message having content data (col. 7, lines 8-13 and 48-51, event information) at a receiving peer system from a first sending peer system connected to said peer system in a peer-to-peer relay (col. 4, lines 31-36, Frame Relay frames) network (col. 7, lines 22-27, wherein Leen discloses event manager 130 may receive first event information 122)

detecting a security violation in the received message (col. 8, lines 46-53, revealing cheating), said security violation changing the outcome of processing be the receiving peer system (col. 8, lines 21-25, wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114)

Leen fails to explicitly disclose a peer-to-peer network.

Baughman teaches:

and sending a manipulated data alert message (page 110, col. 2, lines 40-42, alert players) to other peer systems connected to said peer system in said peer-to-peer relay network (Fig. 4) the manipulated data alert message identifying the sending peer responsible for the manipulation of data (page 110, col. 2, lines 27-42).

As per claim 7, Leen discloses detecting said security violation includes detecting invalid data in said message (col. 8, lines 21-25, wherein Leen discloses statistics

information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114. Further lines 46-53 disclose revealing cheating).

As per claim 8, Leen discloses detecting said security violation includes detecting said message was sent using improper sending procedures (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114. Further lines 46-53 disclose revealing cheating*).

As per claim 10, Baughman discloses ignoring further messages Sent by said sending peer system (page 110, col. 2, lines 27-42).

As per claim 11, Baughman discloses causing said sending peer system to disconnect from said peer-to-peer relay network (page 110, col. 2, lines 27-42, *removal from the current game*).

As per claim 12, Leen discloses sending said manipulated data alert message to a server connected to said peer system (col. 8, lines 25-28, *presenting statistic information to users*).

As per claim 13, Leen discloses the data relayed by peer systems is update data for a network environment (col. 9, lines 44-51).

As per claim 14, Leen discloses the data relayed by peer systems is update data for an online game (col. 9, lines 44-51).

As per claim 15, Baughman discloses at least one peer system is a network-enabled game console (Fig. 4).

As per claim 16, Baughman discloses at least two peer systems are connected through the Internet (Fig. 4).

As per claim 17, Leen discloses a relay network (col. 4, lines 31-36, *Frame Relay frames*), comprising:

means for receiving a first message having first content data (col. 7, lines 8-13 and 48-51, *event information*) at a receiving peer system from a first sending peer system connected to said peer system in a relay (col. 4, lines 31-36, *Frame Relay frames*) network (col. 7, lines 22-27, *wherein Leen discloses event manager 130 may receive **first event information 122***)

means for detecting a manipulation of data in said received first message (col. 8, lines 46-53, *revealing cheating*), said manipulation of data changing the outcome of processing by the receiving peer system (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome*

of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114)

means for receiving a second message having second content data (col. 7, lines 8-13 and 48-51, *event information*) at the receiving peer system (col. 4, lines 31-36, *Frame Relay frames*) from at least one second sending peer system (col. 7, lines 27-30, *wherein Leen discloses event manager 130 may receive second event information 122*)

wherein the second content data are expected (col. 8, line 48, certain predetermined thresholds) to be substantially the same as the first content data (col. 8, lines 46-53, wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user)

wherein detecting said manipulation includes:

comparing by the receiving peer system the first content and second content data (col. 8, lines 34-38, *wherein Leen discloses comparing first and second statistics information*) and determining that the message from the first sending peer system is different from at least one of the second messages based on the comparison (col. 8, lines 46-53, *wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user*)

Leen fails to explicitly disclose a peer-to-peer network.

Baughman teaches:

and sending a manipulated data alert message (page 110, col. 2, lines 40-42, *alert players*) to other peer systems connected to said peer system in said peer-to-peer relay network (Fig. 4) the manipulated data alert message identifying the sending peer responsible for the manipulation of data (page 110, col. 2, lines 27-42).

As per claim 20, Leen discloses sending said manipulated data alert message to a server connected to said peer system (col. 8, lines 25-28, *presenting statistic information to users*).

As per claim 21, Leen discloses a computer-readable medium storing a computer-readable program that when executed on a processor cause the processor to execute (col. 5, lines 38-42) a method in a peer system of a relay network (col. 4, lines 31-36, *Frame Relay frames*), the method comprising the steps of:

receiving a first message having first content data (col. 7, lines 8-13 and 48-51, *event information*) at a receiving peer system from a first sending peer system connected to said peer system in a relay (col. 4, lines 31-36, *Frame Relay frames*) network (col. 7, lines 22-27, *wherein Leen discloses event manager 130 may receive first event information 122*)

detecting a manipulation of data in said received first message (col. 8, lines 46-53, *revealing cheating*), said manipulation of data changing the outcome of processing be the receiving peer system (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a*

gaming application 114, but also characteristics associated with how particular players play a gaming application 114)

receiving a second message having second content data (col. 7, lines 8-13 and 48-51, *event information*) at the receiving peer system (col. 4, lines 31-36, *Frame Relay frames*) from at least one second sending peer system (col. 7, lines 27-30, *wherein Leen discloses event manager 130 may receive second event information 122*)

wherein the second content data are expected (col. 8, line 48, certain predetermined thresholds) to be substantially the same as the first content data (col. 8, lines 46-53, wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user)

wherein detecting the manipulation (col. 8, lines 21-25, wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114) includes:

comparing by the receiving peer system the first content and second content data (col. 8, lines 34-38, wherein Leen discloses comparing first and second statistics information) and determining that the message from the first sending peer system is different from at least one of the second messages based on the comparison (col. 8, lines 46-53, wherein Leen discloses measuring any combination of event information 152, statistics information 154, and profile information 156 against certain predetermined thresholds associated with the user)

Leen fails to explicitly disclose a peer-to-peer network.

Baughman teaches:

and sending a manipulated data alert message (page 110, col. 2, lines 40-42, *alert players*) to other peer systems connected to said peer system in said peer-to-peer relay network (Fig. 4) the manipulated data alert message identifying the sending peer responsible for the manipulation of data (page 110, col. 2, lines 27-42).

As per claim 24, Leen discloses sending said manipulated data alert message to a server connected to said peer system (col. 8, lines 25-28, *presenting statistic information to users*).

As per claim 26, Leen discloses a method of detecting and recovering from violations (col. 8, lines 21-25, wherein Leen discloses *statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114*. Further lines 46-53 disclose *revealing cheating*) in a relay network (col. 4, lines 31-36, Frame Relay frames), comprising:

sending a first message having first content data (col. 7, lines 8-13 and 48-51, *event information*) from a sending peer system to a receiving peer system (col. 7, lines 22-27, wherein Leen discloses *event manager 130 may receive first event information 122*)

detecting a manipulation of data in said sent first message (col. 8, *lines 46-53, revealing cheating*), said manipulation of data changing the outcome of processing by the receiving peer system (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals not only characteristics associated with the outcome of a gaming application 114, but also characteristics associated with how particular players play a gaming application 114*)

wherein detecting said manipulation includes:

relaying (col. 4, lines 31-36, *Frame Relay frames*) back the sent first message to the sending peer by the receiving peer system (col. 8, lines 25-28, *presenting statistic information to users*)

comparing by the sending peer of the relayed back message to the sent first message to identify a receiving peer responsible for the manipulation of data (col. 8, lines 34-53).

Leen fails to explicitly disclose a peer-to-peer network.

Baughman teaches:

and sending a manipulated data alert message (page 110, col. 2, lines 40-42, *alert players*) to other peer systems connected to said peer system in said peer-to-peer relay network (Fig. 4) the manipulated data alert message identifying the sending peer responsible for the manipulation of data (page 110, col. 2, lines 27-42).

As per claim 27, Baughman discloses ignoring messages from the sending peer responsible for the manipulation of data (page 110, col. 2, lines 43-45).

As per claim 28, Baughman discloses forcing the sending peer responsible for the manipulation of data to disconnect from the peer-to-peer relay network (page 110, col. 2, lines 43-45, *removal from the current game*).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leen et al. (U.S. Patent No. 6,899,628) in view of Baughman et al. (INFOCOM 2001. Twentieth Annual Joint Conference of the IEEE Computer and Communications Societies. Proceedings. IEEE, 22-26 April 2001) Entitled "Cheat-proof playout for centralized and distributed online games" and in further view of Yeager et al. (U.S. PGPUB No. 20030028585).

As per claim 9, Leen in view of Baughman discloses user misbehaviors and cheating violations (Leen, col. 8, lines 49-53) and (Baughman, page 105, col. 2, lines 13-17). However Leen in view of Baughman fails to explicitly disclose denial of service attacks.

Yeager teaches: said message was sent as part of denial of service attack (page 24, paragraph [0292], lines 6-10).

It would have been obvious to one of ordinary skill in the art at the time the invention to use the network trust mechanism of Yeager et al.'s in combination with the system and method for providing game event management to a user of Leen et al. to provide a secure network.

One of ordinary skill in the art at the time the invention would have been motivated to make the combination because both inventions disclose user misbehaviors (Leen, col. 8, lines 49-53) and (Yeager, page 24, paragraph [0292]). Both inventions also disclose users are able to manipulate data to change the outcome of the game (col. 8, lines 21-25, *wherein Leen discloses statistics information 154 reveals characteristics associated with the outcome of a gaming application*) and (Yeager, page 10, paragraph [0115]). Manipulating data to change the outcome is considered cheating (Leen, col. 8, lines 21-25) and Leen discloses detection of user misbehaviors (col. 8, lines 49-53). Denial of service attacks are a form of user misbehaviors by data manipulation (Yeager, page 10, paragraph [0115]).

Response to Arguments

Applicant's arguments see pages 10-14, filed January 29, 2007 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Leen et al. (U.S. Patent No. 6,899,628) in view of Baughman et al. (INFOCOM 2001. Twentieth Annual Joint Conference of the IEEE Computer and Communications Societies. Proceedings. IEEE, 22-26 April 2001) Entitled "Cheat-proof playout for centralized and distributed online games" and in further view of Yeager et al. (U.S. PGPUB No. 20030028585). Refer to the corresponding section of the claim analysis for details.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmira Mehrmanesh whose telephone number is (571) 272-5531. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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